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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,877	01/31/2000	Zhigang Fang	70239-00086	4072
58688 7590 09/10/2010 CONNOLLY BOVE LODGE & HUTZ LLP P.O. BOX 2207 WILMINGTON, DE 19899			EXAMINER YANG, JIE	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 09/10/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/494,877

**Applicant(s)**

FANG ET AL.

**Examiner**

JIE YANG

**Art Unit**

1793

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 7, 11-14, 19-21, 25-27, 29, 33, 34, 37 and 41-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 11-14, 19-21, 25-27, 29, 33, 34, 37 and 41-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1, 14, 25, 33, and 43 are amended, claims 1, 7, 11-14, 19-21, 25-27, 29, 33, 34, 37, and 41-44 remain for examination.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 14, 25, 33, and 43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the instant case, the feature of "cermet material consisting of" in the instant claims is not disclosed by the original specification. There is not limitation to limit adding other phases except from first and second phases are not excluded from the composition (refer to page 15 lines 5-13 of the instant specification). Further more, instant claim 25 indicates including third phase in the alloy, which contrary to the limitations of only including first and second phases as recited in the instant claims 1, 14, 33, and 43. Therefore, there is no literal support for this feature.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7, 11, 12, 14, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-156301 (From abstract and machine translation, thereafter JP'301) as evidenced by Nakamura et al (US 5,934,542, thereafter US'542) and in view of JP 10-284547 (Abstract, figure, and table, thereafter JP'547).

JP'301 as evidenced by US'542 in view of JP'547 is applied to the claims 1, 7, 11, 12, 14, and 19-21 for the same reason as stated in the previous rejections dated 3/22/2010.

Regarding the amended limitation in the instant claims 1 and 14, JP'301 as evidenced by US'542 and in view of JP'547 teaches WC with Fe base binder alloy. Super INVAR of JP'301 has a composition of 64wt%Fe; 31wt%Ni; 5wt%Co; 0.3-0.4wt%Mn; and 0.07wt%C as evidenced by US'542 (Col.17, lines 51-56 of US'542) and JP'547 teaches a contact tool e made of WC dispersed in a phase of Co (abstract of JP'547). All of these elements are included in the alloy composition disclosed in the instant claims, which meets the "consisting of" language of the instant claims.

Claims 13, 25-27, 29, 33, 34, 37, and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sue et al (US 2006/0222853, thereafter, PG'853) in view of JP'301 as evidenced by US'542 and in view of JP'547.

PG'853 In view of JP'301 as evidenced by US'542 in view of JP'547 is applied to the claims 13, 25-27, 29, 33, 34, 37, and 41-44 for the same reason as stated in the previous rejections dated 3/22/2010.

Regarding the amended limitation in the instant claims 25, 33, and 43, JP'301 as evidenced by US'542 and in view of JP'547 teaches WC with Fe base binder alloy. Super INVAR of JP'301 has a composition of 64wt%Fe; 31wt%Ni; 5wt%Co; 0.3-0.4wt%Mn; and 0.07wt%C as evidenced by US'542 (Col.17, lines 51-56 of US'542) and JP'547 teaches a contact tool e made of WC dispersed in a phase of Co (abstract of JP'547). All of these elements are included in the alloy composition disclosed in the instant claims, which meets the "consisting of" language of the instant claims.

### ***Response to Arguments***

Applicant's arguments filed on 7/22/2010 with respect to claims 1, 7, 11-14, 19-21, 25-27, 29, 33, 34, 37, and 41-44 have been fully considered but they are not

persuasive. All of the arguments filed on 7/22/2010 have related to the amended feature in the instant claims, the Examiner's position has been stated as above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/ Roy King/  
Supervisory Patent Examiner, Art Unit 1793